

NO. 143

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name Barclay E
Joint Welding Procedure GTAW
Part number and Job number D350636 04 / B37279

TEST WELDS REQUIRED

BASE METAL Aluminum WELDING PROCESS TIG
Penetration Complete ☐ Partial ☒ Single Weld ☒ Double Weld ☐
Current AC ☒ DC ☐ Backing YES ☐ NO ☒

	Position		Vertical Down <input type="checkbox"/> Up <input type="checkbox"/>	
Sheet Groove	1G <input type="checkbox"/>	2G <input type="checkbox"/>	3G <input type="checkbox"/>	4G <input type="checkbox"/>
Tube Groove	1G <input type="checkbox"/>	2G <input type="checkbox"/>	5G <input type="checkbox"/>	6G <input type="checkbox"/>
Sheet Fillet	1F <input type="checkbox"/>	2F <input type="checkbox"/>	3F <input type="checkbox"/>	4F <input type="checkbox"/>
Tube Fillet	1F <input type="checkbox"/>	2F <input type="checkbox"/>	4F <input type="checkbox"/>	5F <input type="checkbox"/>

Crossbolt Spacer Welded into Skidtube

TEST RESULTS

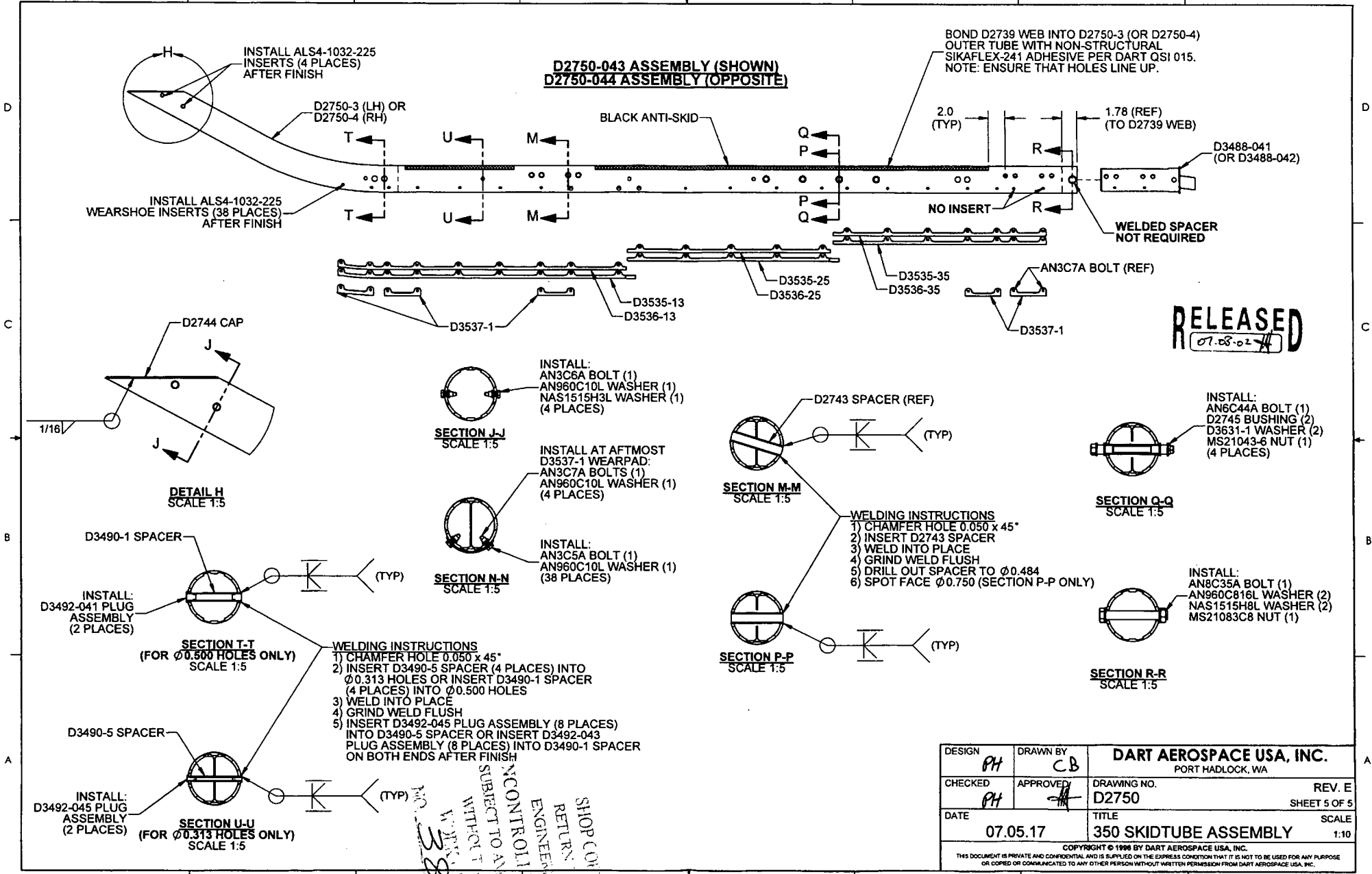
Visual Pass ☒ Fail ☐
Penetration Pass ☒ Fail ☐
Crossbolt Spacer Pass ☒ Fail ☐

The above named individual is qualified in accordance with AWS D17.1.2001 to weld


Date of Test Coupon 08-03-06

Qualifier Pat Diwal

8 7 6 5 4 3 2 1



RELEASED
07-08-02

DESIGN PH	DRAWN BY CB	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED PH	APPROVED 	DRAWING NO. D2750	REV. E SHEET 5 OF 5
DATE 07.05.17	TITLE 350 SKIDTUBE ASSEMBLY		SCALE 1:10
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INSTALL ALS4-1032-225
INSERTS (4 PLACES)
AFTER FINISH

D2750-1 (LH) OR
D2750-2 (RH)

INSTALL ALS4-1032-225
WEARSHOE INSERTS (38 PLACES)
AFTER FINISH

**D2750-041 ASSEMBLY (SHOWN)
D2750-042 ASSEMBLY (OPPOSITE)**

BOND D2739 WEB INTO D2750-1 (OR D2750-2)
OUTER TUBE WITH NON-STRUCTURAL
SIKAFLEX-241 ADHESIVE PER DART QSI 015.
NOTE: ENSURE THAT HOLES LINE UP.

BLACK ANTI-SKID

2.0
(TYP)

1.78 (REF)
(TO D2739 WEB)

D3488-041
(OR D3488-042)

NO INSERT

WELDED SPACER
NOT REQUIRED

D3535-35
D3536-35

AN3C7A BOLT (REF)

D3537-1

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07.05-02

D2744 CAP

**DETAIL H
SCALE 1:5**

INSTALL:
AN3C6A BOLT (1)
AN960C10L WASHER (1)
NAS1515H3L WASHER (1)
(4 PLACES)

**SECTION J-J
SCALE 1:5**

INSTALL AT AFTMOST
D3537-1 WEARPAD:
AN3C7A BOLTS (1)
AN960C10L WASHER (1)
(4 PLACES)

INSTALL:
AN3C5A BOLT (1)
AN960C10L WASHER (1)
(38 PLACES)

**SECTION N-N
SCALE 1:5**

D2743 SPACER (REF)

**SECTION M-M
SCALE 1:5**

WELDING INSTRUCTIONS
1) CHAMFER HOLE 0.050 x 45°
2) INSERT D2743 SPACER
3) WELD INTO PLACE
4) GRIND WELD FLUSH
5) DRILL OUT SPACER TO Ø0.484
6) SPOT FACE Ø0.750 (SECTION P-P ONLY)

INSTALL:
AN6C44A BOLT (1)
D2745 BUSHING (2)
D3631-1 WASHER (2)
MS21043-6 NUT (1)
(4 PLACES)

**SECTION Q-Q
SCALE 1:5**

INSTALL:
AN8C35A BOLT (1)
AN960C816L WASHER (2)
NAS1515H8L WASHER (2)
MS21083C8 NUT (1)

**SECTION R-R
SCALE 1:5**

D3490-3 SPACER

INSTALL:
D3492-043 PLUG
ASSEMBLY
(2 PLACES)

**SECTION K-K
(FOR Ø0.750 HOLES ONLY)
SCALE 1:5**


WELDING INSTRUCTIONS
1) CHAMFER HOLE 0.050 x 45°
2) INSERT D3490-1 SPACER (4 PLACES) INTO
Ø0.500 HOLES OR INSERT D3490-3 SPACER
(4 PLACES) INTO Ø0.750 HOLES
3) WELD INTO PLACE
4) GRIND WELD FLUSH
5) INSERT D3492-041 PLUG ASSEMBLY (8 PLACES)
INTO D3490-1 SPACER OR INSERT D3492-043
PLUG ASSEMBLY (8 PLACES) INTO D3490-3 SPACER
ON BOTH ENDS AFTER FINISH

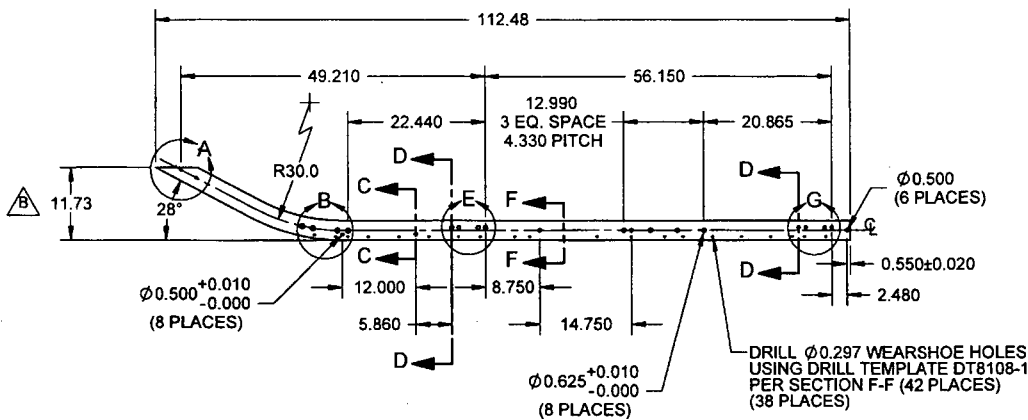
D3490-1 SPACER

INSTALL:
D3492-041 PLUG
ASSEMBLY
(2 PLACES)

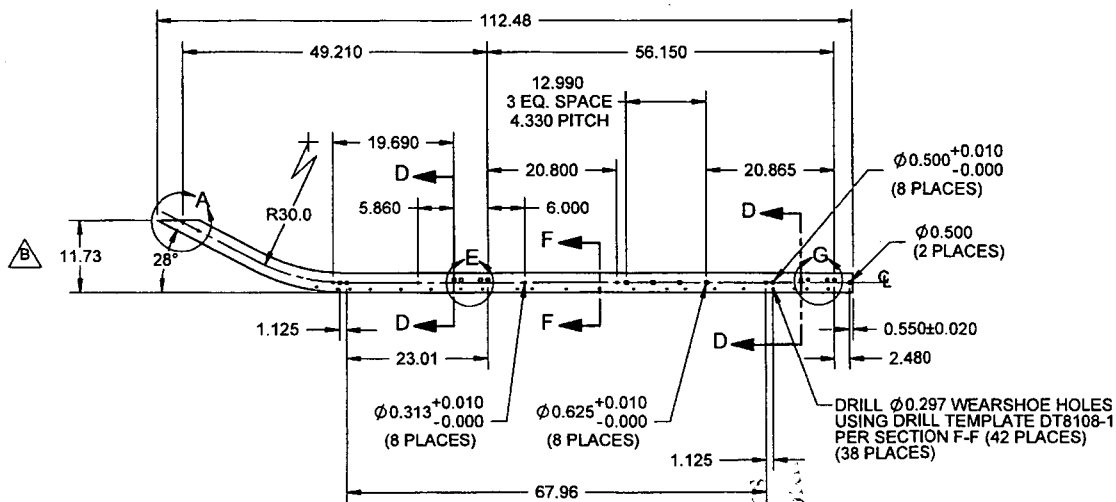
**SECTION L-L
(FOR Ø0.500 HOLES ONLY)
SCALE 1:5**

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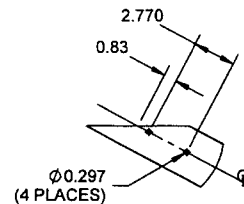
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CHECKED PH	APPROVED 	DRAWING NO. D2750	REV. E SHEET 4 OF 5
DATE 07.05.17		TITLE 350 SKIDTUBE ASSEMBLY	SCALE 1:10
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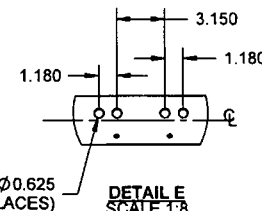
D2750-1 LH SKIDTUBE (SHOWN)
D2750-2 RH SKIDTUBE (OPPOSITE)



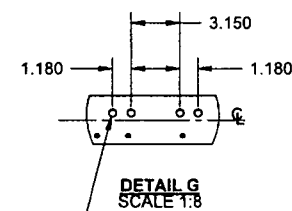
D2750-3 LH SKIDTUBE (SHOWN)
D2750-4 RH SKIDTUBE (OPPOSITE)



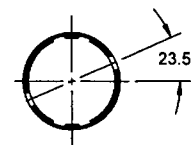
DETAIL A
SCALE 1:8



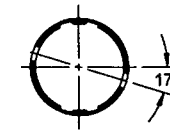
DETAIL E
SCALE 1:8



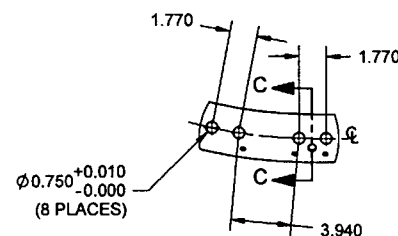
DETAIL G
SCALE 1:8



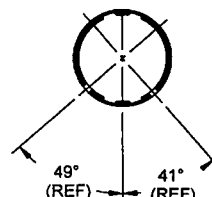
SECTION C-C
SCALE 1:4



SECTION D-D
SCALE 1:4



DETAIL B
SCALE 1:8
(ALL DIMENSIONS ARE STRAIGHT LINE DIMENSIONS)



SECTION F-F
SCALE 1:4

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01-08-01

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DATE 07.05.17	TITLE 350 SKIDTUBE ASSEMBLY		SCALE 1:20

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CHECKED <i>PH</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2750	REV. E SHEET 2 OF 5
DATE 07.05.17		TITLE 350 SKIDTUBE ASSEMBLY	SCALE NTS

GENERAL NOTES:

RELEASED
07-08-02 [Signature]

1. ALL DIMENSIONS ARE IN INCHES.
2. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
3. MAKE FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
4. DAMAGE TOLERANCE ON BENDING:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 12 INCHES ABOVE THE GROUND. NO GOUGING IS ACCEPTABLE IN THE FLAT PORTION OF THE TUBE. GOUGES UP TO 0.020 ARE ACCEPTABLE IN THE BENT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.150 ± 0.010 IN THE FLAT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.15 ± 0.030 IN THE BENT PORTION OF THE TUBE.
5. ALL HOLES DRILLED ON CENTERLINES EXCEPT THOSE NOTED BY SECTIONS C-C, D-D AND F-F.
6. WELDING TO BE DONE PER DART QSI 004.
7. FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
8. FINISH:
ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
9. INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED IN D2750-1/-2/-3/-4 WELDING DETAIL ON PAGE 4 AND 5. DRILL 'F' SIZE HOLES ($\emptyset 0.297$) FOR WEARSHOE INSERTS.
10. D3488-041 (OR D3488-042) BLADE FITTING AND AN3C5A/AN3C7A WEARSHOE BOLTS TO BE INSTALLED USING SIKAFLEX-241 (OR EQUIVALENT) SEALANT.
11. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

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07.08.02

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CHECKED <i>PH</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2750	REV. E SHEET 1 OF 5
DATE 07.05.17		TITLE 350 SKIDTUBE ASSEMBLY	SCALE NTS
REV	DATE	DESCRIPTION	
A	98.04.16	NEW ISSUE	
B	98.09.01	CHANGE MS24694-S293 TO AN8-16A	
C	98.11.18	ADD D2750-3 / D2750-4; INCORPORATE D2738 AND D2740	
D	06.01.05	ADD HOLES AND SPACERS FOR APICAL FLOATS INCORPORATE DEO 9133 / 9157	
E	07.05.17	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS; CHANGE INSERTS; ADD D3631-1; REMOVE QTY(38) NAS1515H3L; REMOVE QTY(10) NAS1515H8L; REMOVE D2741, QTY(2) AN960C816; REMOVE QTY(2) MS21083C8	

Qty -041	Qty -042	Qty -043	Qty -044	Part Number	Description
X				D2750-041	SKIDTUBE ASSEMBLY, LH
	X			D2750-042	SKIDTUBE ASSEMBLY, RH
		X		D2750-043	SKIDTUBE ASSEMBLY, LH
			X	D2750-044	SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-13	WEARSHOE
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3535-35	WEARSHOE
1	1	1	1	D3536-13	GASKET
1	1	1	1	D3536-25	GASKET
1	1	1	1	D3536-35	GASKET
5	5	5	5	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
42	42	42	42	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
38	38	38	38	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN3C7A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
46	46	46	46	AN960C10L	WASHER
2	2	2	2	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER
2	2	2	2	NAS1515H8L	WASHER

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 3/18/2008 4:01:23 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 38096

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

55.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Package as per PPP D350-636-012

F *Pcs 4/10* *(U)*

56.0

QC21

FINAL INSPECTION W/O RELEASE



08/04/14 *[Signature]*

Comment: FINAL INSPECTION W/O RELEASE

Job Completion



mf 08-04-11

W

B38096

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 38096

Part Number: D350636012

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

48.0	AN960C816L	WASHER
------	------------	--------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Washer

Batch: M107520

SP

49.0	MS21083C8	NUT
------	-----------	-----



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Nut

Batch: M106431 (IX) M107650

SP

50.0	AN8C21A	BOLT
------	---------	------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bolt

Batch: M105760

SP

51.0	NAS1515H8L	WASHER
------	------------	--------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

WASHER

Batch: M107581

SP

52.0	D34931	WASHER
------	--------	--------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

WASHER

Batch: B36034

SP

53.0	D35321	spacer
------	--------	--------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

spacer

Batch: 33085

8/4/10

SP

54.0	QC4	INSPECT 100% KITS FOR COMPLETENESS
------	-----	------------------------------------



Comment: INSPECT 100% KITS FOR COMPLETENESS

808/04/10 SP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 38096

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

42.0

NAS1515H3L

WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

WASHER

Batch: M106516

JSJ

43.0

NAS1515H8L

WASHER



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

WASHER

Batch: M107581

JSJ

44.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

✓ 1-Inspect for Foreign Objects

✓ 2-Spray inside of tube with "LPS-3"
batch: M105005

3-Install blade fitting D3488-042, wearshoes and ground handling hardware as per dwg D2750

SIKA FLEX 241

BATCH: M107397

EXP DATE: 08/10

4-Coat all exposed fasteners with "LPS Procyon"

batch: M104251

JSJ 08.04.10 (X)

45.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

JSJ 08/04/10 (X)

46.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

47.0

D2741

Blade



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Blade

Batch: B36343

JSJ 8/4/10 SQ (X)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Date: Tuesday, 3/18/2008 4:01:23 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 38096

Part Number: D350636012

Job Number:



Seq. #:	Machine Or Operation:	Description :
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35.0	AN3C7A	BOLT
------	--------	------



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

BOLT

Batch: M105906

JS

36.0	AN6C44A	BOLT
------	---------	------



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

BOLT

Batch: M107314

JS

37.0	AN8C35A	BOLT
------	---------	------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

BOLT

Batch: M102671

JS

38.0	AN960C10L	washer
------	-----------	--------



Comment: Qty.: 46.0000 Each(s)/Unit Total : 46.0000 Each(s)

washer

Batch: M107376

JS

39.0	AN960C816L	WASHER
------	------------	--------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

WASHER

Batch: M106513

JS

40.0	MS210436	NUT
------	----------	-----



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

NUT

Batch: M103693

JS

41.0	MS21083C8	NUT
------	-----------	-----



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

NUT

Batch: M106431

JS

08-04-10

(X1)

W/O:		WORK ORDER CHANGES					
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Job Number: 38096

Part Number: D350636012

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

28.0	D35371	WEARPAD
------	--------	---------



Comment: Qty.: 5.0000 Each(s)/Unit Total : 5.0000 Each(s)

WEARPAD

Batch: 1338254

JS

29.0	D36311	WASHER
------	--------	--------



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

WASHER

Batch: 1334276

JS

30.0	D3488042	BLADE FITTING ASSEMBLY, RH
------	----------	----------------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Blade Fitting, RH

Batch: 1335587

JS

31.0	D3492041	PLUG ASSEMBLY
------	----------	---------------



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

PLUG ASSEMBLY

Batch: 1336902

JS

32.0	D3492043	PLUG ASSEMBLY
------	----------	---------------



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

PLUG ASSEMBLY

Batch: 1336237

JS

33.0	AN3C5A	Bolt
------	--------	------



Comment: Qty.: 38.0000 Each(s)/Unit Total : 38.0000 Each(s)

Bolt

Batch: M1106780

JS

34.0	AN3C6A	BOLT
------	--------	------



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bolt

Batch: M1105300

JS

08-04-10

(X1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 3/18/2008 4:01:23 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 38096

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

21.0

D2745

Bushing



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Bushing

Batch: 1334817

JS

22.0

D353513

WEARSHOE



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEARSHOE

Batch: 1337584

JS

23.0

D353525

WEARSHOE



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEARSHOE

Batch: 1337898

JS

24.0

D353535

WEARSHOE



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEARSHOE

Batch: 1336425

JS

25.0

D353613

GASKET



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: 1336635

JS

26.0

D353625

GASKET



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: 1336636

JS

27.0

D353635

GASKET



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: 1338183

JS

08-04-10

(X1)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 3/18/2008 4:01:23 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 38096

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

8-Grind welds flush as per Dwg D2750

9-Spot face ground handling holes section J-J (total of 4 places per side) as per dwg D2750

10-Deburr holes

52 8-4-8

14.0

QC8/10

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PD 08-04-09 / 8-08-04-08 (X)

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

8-08-04-08 (X)

16.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1
Pressure wash as per QSI 005

HS

08-04-09

(X)

17.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING
Powder Coat Gloss White (Ref. 4.3.5.1) as per Dart QSI 005 4.3

M 107550

BR 08-04-09

(X)

18.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION,
Inspect for foreign object per QSI 024

HS

08-04-10

(X)

19.0

ALS41032225

Insert



Comment: Qty.: 42.0000 Each(s)/Unit Total: 42.0000 Each(s)

Insert

Batch: M 100621

HS

20.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1
1-Install inserts as per dwg D2750

HS

08-04-10

(X)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 3/18/2008 4:01:23 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 38096

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description:

10.0

D34901

CROSS BOLT SPACER



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Crossbolt spacer

Batch:

B33824

BE 08/04/08

11.0

D34903

CROSS BOLT SPACER



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Crossbolt spacer

Batch:

B33825

BE 08/04/08

12.0

D2743

Crossbolt Spacer



Comment: Qty.: 8.0000 Each(s)/Unit Total: 8.0000 Each(s)

Crossbolt Spacer

Batch:

B36030

BE 08/04/08

13.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Open up holes of Detail V & Detail C to 0.625" (total of 8 holes per side)
as per dwg D2750.

2-Open up holes of Detail D to 0.750" (total of 4 holes per side)
as per dwg D2750.

3-Open float holes to .500" (4 per Side)

4-Chamfer holes of Detail V, Detail C, Detail D and hole size "W" per dwg D2750 (welding instructions on sheet 4)

5-Deburr and blow out all chips from inside of tube

6-Prepare tube for welding, remove alodine as required.

6-Bond web D2739 in place as per QSI 015

A/R

Sikaflex-291

batch:

107397

exp. date:

8-31

7- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004
(welding instructions on sheet 4)

A/R

Aluminum Rod

batch:

107263

BE 08/04/08

SL 8-47

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 3/18/2008 4:01:23 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 38096

Part Number: D350636012

Job Number:



Seq. #:

Machine Or Operation:

Description :

3- Mark fwd end for cutting using Drill Jig DT 8150 & DT8863 and cut as per dwg D2750.

4-Drill pilot holes for Detail B using DT8330

5-Open up holes for Detail B, "hole size W" and blade fitting location holes to 0.500" (total of 9 holes per side) as per dwg D2750 .

6-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 and open to 0.297" ***Make sure that wearplate holes are on bottom of tube*****

7-Open up holes of Detail A to 0.250" (total of 2 holes per side)

9-Weld D2744 Cap as per Dwg D2750 and QSI 004.Fill grooves in bend left from bending as per QSI 004
A/R Aluminum Rod *m/06330 BE 08/04/02*

10-Grind welds flush as per Dwg D2750 *8-4-3*

5.0

QC8/10

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION *PD 08/04/04*

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP *8-08/04/04*

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1 *AWM 8-4-7*

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION *BE 08-04-07*

9.0

D2739

350 I Beam



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Web

Batch: *B 36771 SL 8-4-7*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 3/18/2008 4:01:23 PM
 User: Kim Johnston

Process Sheet

14

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : 350 SKIDTUBE ASSEMBLY RH
 Job Number : 38096
 Estimate Number : 10265
 P.O. Number :
 This Issue : 3/18/2008 S.O. No. :
 Prsht Rev. : NC Part Number : D350636012
 First Issue : 3/18/2008 Type : LANDING GEAR Drawing Number : D2750 REV E
 Previous Run : 38095 Material :
 Due Date : 4/4/2008 Qty: 1 Um: Each
 Written By :
 Checked & Approved By : AD 08 03 18
 Comment : Est Rev: I 02-09-25 Rearranged procedure steps KJ
 Est Rev: J 06-03-29 As per Rev D EC
 Est Rev: K 06-07-13 As per dsi9343 EC
 Est Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM
 Verified By: EC

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy blue file and type labels per PPP D350-636-012 CHG 003

08/04/10 08/4/10-8

2.0 D26003BENT Extrusion Bent



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2600-3-Bent

Extrusion (Bent)

B37258

SL 8-4-2

3.0 D2744 Fwd Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Cap

Batch: 33996

SL 8-4-2

4.0 LANDING GEAR 1 LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1- Mark cut line on aft end of D2600-3-Bent using Jig DT 8150. Cut to length as per Dwg D2750. Deburr end

2- Drill pilot holes as per Dwg D2750 sheet 3 (D2750-1 details). Drill using drill Jig DT8150 & DT8863 drilling holes labelled "A" only.

SL 8-4-2